

**IN THE CLAIMS**

Please amend the claims as follows:

What is claimed is:

1. (original) A method for detecting teneurin signalling, which method comprises:
  - a) determining the presence of a cleaved teneurin product associated with teneurin signalling, wherein said cleaved teneurin product comprises at least a portion of the cytoplasmic domain of teneurin and targets to the cell nucleus; and
  - b) correlating the presence and/or amount of said cleaved teneurin product with teneurin signalling.
2. (original) A method as claimed in claim 1, wherein said teneurin is teneurin-1, teneurin-2, teneurin-3 or teneurin-4.
3. (currently amended) A method as claimed in the preceding claim 1, wherein the cleaved teneurin product is formed in ~~tumour~~ tumor cells.
4. (previously presented) A method as claimed in claim 1, wherein the cleaved teneurin product is formed in neurons.
5. (cancelled)
6. (currently amended) A method as claimed in claim 5 1, wherein the teneurin is recombinant.
7. (currently amended) A method as claimed in claim 6 1, wherein the cleaved teneurin product comprises a tag or label.

8. (original) A method as claimed in claim 7, wherein said determining step (b) comprises detecting said tag or label photometrically.

9. (currently amended) A method as claimed in claim 7, wherein said tag is selected from the group consisting of GFP green fluorescent protein, YFP yellow fluorescent protein, hemagglutinin, (Histidine)<sub>7</sub>, a DNA binding domain.

10. (withdrawn) A method as claimed in claim 9 wherein said determining step (b) comprises allowing said DNA binding domain to bind to a nucleic acid comprising regulatory sequences operable linked to a reporter gene and detecting activity of said reporter gene.

11. (withdrawn) A method as claimed in claim 10 wherein said DNA binding domain comprises a GAL4 DNA binding domain.

12. (previously presented) A method as claimed in claim 9, wherein said tag is a DNA binding domain and further comprises an NFkB domain.

13. (currently amended) A method as claimed in any one of the preceding claims wherein said determining step comprises determining the amount of said cleaved ~~tenasein~~ teneurin product.

14. (withdrawn) A method as claimed in the preceding claim wherein the cleaved teneurin product regulates expression or activity of a cellular target.

15. (withdrawn) A method as claimed in claim 14 further comprising detecting expression or activity of said cellular target.

16. (withdrawn) A method as claimed in claim 15 wherein said cellular target is PAL.

17. (withdrawn) A method as claimed in claim 15 wherein said cellular target is Zic.

18. (withdrawn) A method as claimed in claim 15 wherein said cellular target is ponsin.

19. (withdrawn) A method as claimed in claim 1 wherein said disease or condition is dependent on cell proliferation and/or neuronal differentiation.

20. (withdrawn) A method as claimed in claim 19 wherein said disease or condition is dependent on cell proliferation and/or neuronal differentiation.

21. (withdrawn) Use of a detectable cleaved teneurin product associated with teneurin signaling in a method of diagnosis of a neuropathology or cell pathology affected by teneurin signaling.

22. (withdrawn) A method for assessing the ability of an agent to modulate teneurin signaling, comprising the steps of:

- (a) contacting teneurin with at least one agent;
- (b) detecting cleavage of said teneurin by a cellular component associated with teneurin signaling in the presence of said agent; and
- (c) correlating a difference in cleavage of said teneurin relative to when said agent is absent with an indication of the presence of an agent effective in modulating teneurin signaling.

23. (withdrawn) A method as claimed in claim 22 wherein step (a) is performed by perfusing a cell expressing recombinant teneurin with the agent.

24. (withdrawn) A method for assessing the ability of an agent to modulate teneurin-mediated signaling, comprising the steps of:

- (a) exposing a cell to an agent.
- (b) detecting expression or activity of said gene with the presence of a modulator of teneurin signaling.

25. (withdrawn) The use of an agent detected by a method of claim 22 for the manufacture of a

medicament for the treatment or prophylactic treatment of a neuropathological condition.

26. (withdrawn) The use of an agent detected by a method of claim 22 for the manufacture of a medicament for the treatment of prophylactic treatment of tumourigenesis or cancer.

27. (withdrawn) The use of a cleaved teneurin product associated with teneurin signaling wherein said cleaved teneurin product comprises at least a portion of the cytoplasmic domain of teneurin and targets to the cell nucleus; for the manufacture of a medicament for the treatment or prophylactic treatment of tumourigenesis or cancer.

28. (withdrawn) The use of a cleaved teneurin product associated with teneurin signaling, wherein said cleaved teneuring product comprises at least a portion of the cytoplasmic domain of teneurin or prophylactic treatment of a neuropathological condition.

29. (withdrawn) A method of treating an individual in need of treatment or prophylactic treatment of tumourigenesis, cancer or a neuropathological condition, said method comprising administering an effective amount of an agent identified by claim 22 sufficient to ameliorate the symptoms of said individual.

30. (withdrawn) A method of treating an individual in need of treatment or prophylactic treatment of tumourigenesis, cancer or a neuropathological condition, said method comprising administering an effective amount of a cleaved teneurin product comprising at least a portion of the cytoplasmic domain of teneurin, which targets to the cell nucleus, sufficient to ameliorate the symptoms of said individual.

31. (Currently amended) A composition comprising a cleaved teneurin product and an intracellular target of the cleaved teneurin product.

32. (original) The composition of claim 31 wherein said cleaved teneurin product comprises at least a portion of the cytoplasmic domain of teneurin and targets to the cell nucleus.

33. (currently amended) A composition as claimed in claim 31 wherein said intra-cellular target is PML.
34. (withdrawn) A composition as claimed in claim 31 wherein said cellular target is Zic.
35. (withdrawn) A composition as claimed in claim 31 wherein said cellular target is ponsin.
36. (withdrawn) A composition as claimed in claim 31 wherein said cellular target is myc.
37. (withdrawn) A composition as claimed in claim 31 wherein said cellular target is p53.
38. (withdrawn) A kit comprising a teneurin and a protease.